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New and noteworthy records of birds from south-eastern Nicaragua

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The south-eastern Nicaraguan lowlands, bordering Costa Rica along the río San Juan, constitute one of the more extensive forested areas in Central America and sustain a rich avifauna (Howell 1969). However, for historical and political reasons, Nicaragua's flora and fauna remain poorly studied (Gillespie 2001). Recently, interest in ornithology has slowly increased, but neighbouring Costa Rica is still pre-eminent in terms of research and conservation, and a far more popular tourist destination due to its comparatively well-known avifauna and comprehensive field guide (Stiles & Skutch 1989). In contrast, there are few publications on Nicaraguan ornithological research (Martínez-Sánchez 1990), though the last dozen or so years have seen renewed efforts, including specific studies on Nicaraguan birds conducted by both nationals and foreigners (Cody 2000a,b, Arguedas-Negrini 2001, Wiedenfeld *et al.* 2001, Gillespie 2001, 2002, Woltmann 2004, Kjeldsen 2005; <http://www.bio-nica.org/biblioteca/BibliAves.htm>). Whilst these have considerably increased our knowledge, there is still a large information gap regarding distributions of Nicaraguan birds (Gillespie 2001) and additional data are needed so that conservation efforts can be directed appropriately. Here we present noteworthy



Figure 1. Location of the study site in Nicaragua; note the distance from La Selva Biological Station, Costa Rica.

observations of Nicaraguan birds, including several species previously unrecorded in the country, together with notes on latitudinal and altitudinal range extensions for several others within the country.

Study site

The río San Juan flows from the south-east end of Lake Nicaragua, the largest freshwater body in Central America, and its lower reaches serve as the border between Costa Rica and Nicaragua, until the river reaches the Caribbean. The observations reported here were made at Refugio Bartola, a lodge at the confluence of the ríos Bartola and San Juan ($10^{\circ}57'N$, $84^{\circ}19'W$), adjacent to the Indio Maíz Biological Reserve (IMBR) in Nicaragua, with some additional observations at the Río San Juan Wildlife Refuge and from within the IMBR (Fig. 1). Near the confluence of these rivers, elevations are 30–100 m and vegetation is typically evergreen tropical wet forest of the Caribbean lowlands, with an annual precipitation of 4,000–6,000 mm p.a., making it one of the wettest parts of Central America (Campbell & Lamar 1989, Incer 1979 *in* Martínez-Sánchez 1990). The dry season extends from February to April and the greatest precipitation falls in December–January (Cody 2000a). Topography is characterised by somewhat hilly

terrain with flatter areas cut by meandering streams through soils composed mainly of red clay. Vegetation is nearly entirely primary forest with minimal human intervention especially in the biological reserve, but in the buffer zone to the west there is an increasing degree of disturbance mainly due to cattle farming along the río San Juan. In pristine forest the canopy reaches 40 m, with some emergents up to 50 m high. Forest composition is similar to that of La Selva Biological Station, Costa Rica, but the dominant tree is *Dipteryx panamensis*, rather than *Pentaclethra macroleoba* as at La Selva (Hartshorn & Hammel 1994, Cody 2000a). The margins of the río San Juan mostly consist of swampy areas that vary seasonally in their degree of inundation; our surveys included these river-edge habitats, as well as the rain forest proper. Most observations reported here were made at Refugio Bartola and adjacent parts of IMBR by CMR and RHS (September–November 2005, February–April 2006), MLC (April–May 1994, 1999, 2001 and 2003), BJS (April–May 1999, April and July 2004) and SW (April and July 2004), whilst JPK supplied records from the dry seasons of 2002–05.

Species accounts

AGAMI HERON *Agamia agami*

Observed, by BJS, c.5 m up in forest at Refugio Bartola, over a small tributary of the río Bartola, in April 1999. MLC also observed the species in the same area during his visits in 1994 and 1999. *Agamia* is uncommon almost throughout its range and despite having been previously recorded in Nicaragua we consider these reports to be significant.

BARRED HAWK *Leucopternis princeps*

A single was seen, on 15 November 2005, by RHS and CMR, circling high over the Costa Rican side of the río San Juan. It slowly crossed into Nicaragua and finally disappeared from sight over the IMBR, entering the reserve. The species has not previously been recorded north of Costa Rica or lower than 50 m elevation (Ferguson-Lees & Christie 2001). This may have been a vagrant individual.

HARPY EAGLE *Harpia harpyja*

RHS observed one, on 20 September 2005, flying low over the canopy at Refugio Bartola. It was first noticed by its vocalisation then observed gliding c.20 m above a leafless tree. A group of Mantled Howler Monkeys *Alouatta palliata*, first seen a few minutes previously, was found perching quietly and motionlessly on thin branches just 4–6 m above ground afterwards. MLC had one observation of this species flying downriver into the Bartola reserve in May 1999. Records in Central America are very patchy and the species appears to be rare throughout almost the entire region (Ferguson-Lees & Christie 2001). It was predicted to be the most extinction-prone bird species in Nicaragua (Gillespie 2001).

CRESTED EAGLE *Morphnus guianensis*

The first records of this rare eagle in southern Nicaragua were made by MLC on 10 May 1994 and 15 May 1999. It had previously been recorded in northern Nicaragua, in the North Atlantic Autonomous Region (Kjeldsen 2005).

OLIVE-BACKED QUAIL-DOVE *Geotrygon veraguensis*

G. veraguensis was first reported in Nicaragua by MLC, on 6 May 1999, in the Refugio Bartola (Cody 2000b). The species was also seen and heard on several occasions by BJS and SW on 26 July 2004. These are the northernmost records of the species.

BLUE-HEADED PARROT *Pionus menstruus*

Observed by MLC, on 10 May 1999, in low trees around the overgrown clearing on the west bank of the río Bartola, 1 km north of the Refugio Bartola headquarters. On 22 April 2006, RHS observed two birds flying from Costa Rica into the IMBR. Although *P. menstruus* is common within its range (from Costa Rica through South America), our observations may suggest an extension of its distribution to the north, perhaps due to deforestation in the Caribbean lowlands of Costa Rica (Sigel *et al.* 2006, Stiles & Skutch 1995).

CENTRAL AMERICAN PYGMY-OWL *Glaucidium griseiceps*

Two birds were first heard, by JPK, on 28 February 2003 in the grounds of Refugio Bartola. Subsequently, the species was frequently heard by BJS and SW in forest at Refugio Bartola adjacent to the IMBR in 2004–05 (a recording has been archived at <http://www.xeno-canto.org/>). Within the IMBR another was recorded, by JPK, at the village of Cristo Rey in 2004. It has since been recorded also at the río Prinzapolka in the North Atlantic Autonomous Region (Kjeldsen 2005). Though assumed to occur from Mexico to Ecuador (Howell & Webb 1995, König *et al.* 1999), the species has not previously been recorded in Nicaragua.

RUFIOUS NIGHTJAR *Caprimulgus rufus*

This species was heard, by MLC, calling from the IMBR on 25 April 1999. Though a common species from Costa Rica through South America, this is apparently the first record north of the usual range and a new country record.

GREAT JACAMAR *Jacamerops aureus*

SW heard this species' unique vocalisations near dawn, in forest at Refugio Bartola, on 25 July 2004, but was unable to tape-record them. Great Jacamar was mentioned for Refugio Bartola by Kjeldsen (2005), reporting an observation made by O. Thorup in March 2003. There are other records, from the río Prinzapolka in the North Atlantic Autonomous Region of Nicaragua, in February 2001 (Kjeldsen 2005), and the Sutawala Valley of Honduras, in March 2004 (<http://www.birdinghonduras.com>). This uncommon species is of interest due its sparse distribution and sensitivity to disturbance (Stiles & Levey 1994, Tobias *et al.*

2002). Formerly, Costa Rica (where it is very scarce) was thought to represent the northernmost limit of the species (Stiles & Skutch 1995).

PIED PUFFBIRD *Notharchus tectus*

A pair was seen, by JPK, in forest near the village of Bartola, c.3 km along the río Bartola from Refugio Bartola, in March 2005. Pied Puffbird occurs in the lowlands of Costa Rica south of the border, where it is thought to be declining (Stiles & Skutch 1995), but has not previously been recorded in Nicaragua. Large areas of the species' preferred habitat exist in south-east Nicaragua.

BROWN-BILLED SCYTHEBILL *Campylorhamphus pusillus*

One was seen in the subcanopy, near a narrow stream adjacent to a forest border, by CMR and RHS, on 10 November 2005. This is the northernmost record of this species, which otherwise ranges from Costa Rica to Ecuador (Ridgely & Tudor 1994).

PLAIN ANTVIREO *Dysithamnus mentalis*

This common member of subcanopy antwren-dominated flocks at Refugio Bartola was previously reported by Cody (2000a) and there are other records from cloud forests in the north of the country (Martínez-Sánchez 2006), but despite this Nicaragua is rarely mentioned within the range of this species (e.g. Zimmer & Isler 2003).

WING-BANDED ANTBIRD *Myrmornis torquata*

Observed at close range, by MLC in May 1994, at Refugio Bartola, *M. torquata* is known only from scattered records throughout its range, with previous records in Nicaragua and Panama, but not Costa Rica (Huber 1932, Ridgely & Tudor 1994, Zimmer & Isler 2003). It is also assumed to occur in eastern Honduras, but this requires verification (Anderson *et al.* 2004). The above observation suggests the species could occur in northern Costa Rica.

WHITE-RINGED FLYCATCHER *Conopias albobittatus*

First recorded at Refugio Bartola by JPK in 2003, and BJS and SW occasionally recorded the species in trees around the buildings of Refugio Bartola in 2004. RHS and CMR twice observed individuals perched in an *Erythrina fusca* beside the river at Refugio Bartola, on 18 September 2005 and 16 March 2006. This species ranges from Honduras to Colombia (Fitzpatrick 2004), but ours appear to be the first published records for Nicaragua.

YELLOW-MARGINED FLYCATCHER *Tolmomyias assimilis*

This noisy and conspicuous species was first observed in Nicaragua on 3 May 1999 when it was identified on the basis of appearance and voice (Cody 2000b). BJS and SW occasionally heard the species while conducting point counts in the forest at Refugio Bartola adjacent to the IMBR in May 2004.

BLACK-CAPPED PYGMY-TYRANT *Myiornis atricapillus*

Twice in March 2005 a small group of these flycatchers was observed, by JPK, close to the village La Bijagua, c.5 km north-east of the mouth of the río Bartola. The species was also heard regularly at Bartola, by SW and BJS, who detected several individuals during point counts in 2004, on 5 and 8 April and 24–26 July. These sightings are the first in Nicaragua.

BARE-NECKED UMBRELLABIRD *Cephalopterus glabricollis*

JPK and O. Thorup observed two females / immatures 1.5 km along the río Bartola from the confluence with the San Juan, roosting on the IMBR side of the river, on 26 February 2003. CMR and RHS observed one 350 m upriver as it crossed to the IMBR side, on 12 November 2005. There is another record, from Los Guatuzos Refuge, at the headwaters of the río San Juan, on Lake Nicaragua, in February 1999 (Martínez-Sánchez 2006). Hitherto, Bare-necked Umbrellabird was considered endemic to Costa Rica and Panama. We note also the existence of suitable habitat at the correct elevation for this species within the IMBR and north of the río San Juan within Nicaragua, thus the species may regularly moving downslope to Nicaraguan territory from Costa Rica during the non-breeding season (Chaves-Campos *et al.* 2003).

PURPLE-THROATED FRUITCROW *Querula purpurata*

Frequently heard at Refugio Bartola, by MLC, during 1995 to 2003; BJS and SW observed the species on ten of 60 point counts at Refugio Bartola in July 2004, and it was also seen by MLC in a mixed-species canopy flock that included *Monasa morphoeus* and *Pteroglossus torquatus*. *Q. purpurata* had been recorded just once previously in Nicaragua (Gillespie 2001) and had hitherto only been considered as resident as far north as Costa Rica (Stiles & Skutch 1995).

VEERY *Catharus fuscescens*

Observed, by MLC, on 15 April 2001 at the Refugio Bartola headquarters, *C. fuscescens* is usually regarded as rare on migration through Central America (Clement & Hathway 2000). For Nicaragua, there are only two previous records, from cloud forests in the north (Martínez-Sánchez 2006).

BLACKPOLL WARBLER *Dendroica striata*

MLC recorded this species on 8 April 2001 and 16 April 2003 at Refugio Bartola. There is also a record from the río Prinzapolka, in the North Atlantic Autonomous Region, in April 2002 (Kjeldsen 2005). *D. striata* is apparently a rather rare spring migrant in Nicaragua, where until now it had not been reported.

WHITE-LINED TANAGER *Tachyphonus rufus*

JPK observed a female in a garden in the town of Boca de Sábalos, foraging with other tanagers at a fruiting tree, on 11 April 2005. It is reportedly extending its range

in Costa Rica due to deforestation (Stiles & Skutch 1989), and this is the first record in Nicaragua.

Additional records of interest

The following records are also considered of interest. **Green Ibis** *Mesembrinibis cayennensis*: though previously mentioned just once in Nicaragua (Wiedenfeld *et al.* 2001), it seems to be fairly common, with several records by SW and BJS (April and July 2004), CMR and RHS (October 2005, February–April 2006) in swampy margins of the río San Juan, at Refugio Bartola and the IMBR; its range extends from Honduras (Anderson *et al.* 2004) to South America (Parker *et al.* 1996). **Semiplumbeous Hawk** *Leucopternis semiplumbea*: observed in 1999 by BJS (23 April) and MLC, with records on 16 November 2005 and 21 February 2006 by RHS; previously recorded elsewhere in Nicaragua, but it appears to be uncommon, though there is suitable habitat in IMBR. **Yellow-winged Tanager** *Thraupis abbas*: common elsewhere in Nicaragua and around the Bartola headquarters, where observed visiting fruiting trees on 11 November 2005 and on 5, 18 and 21 March 2006, by CMR and RHS, always with Palm Tanager *T. palmarum*; Yellow-winged Tanager is assumed to be absent from Costa Rica and southern Nicaragua (www.natureserve.org), but it seems likely that the species occurs in both. **Black-bellied Hummingbird** *Eupherusa nigriventris* and **Masked Yellowthroat** *Geothlypis aequinoctialis*: both species have records needing confirmation or further support. A bird was identified, in 1994, as a Black-bellied Hummingbird by MLC, but this species is known only from the Caribbean slope in Costa Rica and Panama, in mid-elevational forest (Stiles & Skutch 1989). Although there are some unexplored mountains in IMBR of almost 700 m, this species apparently requires even higher elevations. Perhaps it occurs as a vagrant or a seasonal migrant from the Costa Rican breeding grounds. Masked Yellowthroat was recorded by CMR and RHS twice; on 10–11 November 2005, a male and female were observed in marshes bordering the río San Juan, at Refugio Bartola; on 19 February 2006, a male was seen in a pasture adjacent to Refugio Bartola. Common Yellowthroat *G. trichas* is a winter visitor to this region and Olive-crowned Yellowthroat *G. semiflava* a common resident. However, these birds had uniform yellow underparts and the males a conspicuous grey crown and forehead. The northernmost record of the species corresponds to the race *chiriquensis*, from the Chiriquí region of Costa Rica and Panama (Curson *et al.* 1994, Stiles & Skutch 1995), but it may be that deforestation has facilitated an expansion of its range.

Concluding remarks

These records add to the growing body of data on Nicaraguan birds. However, there is a great need for further research, especially using standardised methods and counting techniques, as well as continued collection of specimens, to better assess the Nicaraguan avifauna. Previous attempts to establish a scientific collection of

avian specimens in Nicaragua failed due to lack of support from institutions and local universities (J. C. Martínez-Sánchez pers. comm.). Despite the efforts of local and visiting researchers, Nicaraguan birds remain severely understudied, hampering the instigation and execution of conservation strategies. The monitoring of migratory birds at MoSI stations (Monitoreo de Sobrevivencia Invernal) that record overwinter survival of Neotropical migrants is a good example of useful current monitoring efforts, but even this requires additional funding to continue in the río San Juan region (S. Morales pers. comm.). The IMBR and the río San Juan become increasingly important, as other large protected areas in the region, e.g. La Selva Biological Station in Costa Rica, are experiencing species declines and possibly extirpations (Sigel *et al.* 2006). The IMBR represents one of the largest intact tracts of undisturbed lowland forest on the Caribbean slope of Central America, and its preservation is critical to the conservation of the unique and diverse avifauna of the region. For some altitudinal migrants, such as Bare-necked Umbrellabird, reported to move seasonally, from c.1,400 m to the lowlands (Chaves-Campos *et al.* 2003), it is important to determine if these migrations occur from Costa Rica to Nicaragua (like Three-wattled Bellbird *Procnias tricarunculatus*: Powell & Bjork 2004), or if these are restricted to within Nicaragua. Gaps in the knowledge of Nicaraguan birds have unfortunately left the country as something of a backwater with respect to conservation and research efforts (Gillespie 2002), a view that we hope will be redressed by renewed research. Though biodiversity does not recognise political borders, we feel justified in drawing attention to the critical conservation role of the IMBR and the río San Juan region in Central American biodiversity.

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Ecology, population and conservation status of the Chocó Vireo *Vireo masteri*, a species new to Ecuador

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Chocó Vireo *Vireo masteri* was only recently described from Pacific premontane pluvial forest of the western Andean slope of Colombia, where it is known from three sites at 1,100–1,600 m: Alto de Pisones, Risaralda, and two in the Junín area, Nariño (Salaman 1994, Salaman & Stiles 1996). These two areas are 520 km apart, but it was postulated that the species is more or less continuously distributed where appropriate habitat remains. However, all searches and playback trials in intervening areas have failed to find the vireo. The population was estimated at 1,000–2,499 individuals and its Extent of Occurrence to be 3,105 km², which in combination with its restriction to two areas and suspected declines in Extent of Occurrence, Area of Occupancy, area and extent of habitat, and number of mature individuals, qualified the species as Endangered (BirdLife International 2004, 2006).

It was long suspected that *V. masteri* also occurs in north-west Ecuador (Moore *et al.* 1999; P. Salaman pers. comm.). However, it went unrecorded until 16 September 2004, when BP observed and tape-recorded a pair with a mixed-species flock c.3.7 km east of Alto Tambo, Esmeraldas, on the Ibarra–San Lorenzo highway (c.00°54'N, 78°30'W; c.900 m). The late P. Coopmans subsequently confirmed the identification of the tape-recordings, and P. Salaman checked BP's field description. On 24 August 2005, BP failed to relocate the species at the same site, despite repeated broadcasting of pre-recorded vocalisations. However, on 18 September 2005, following the San Lorenzo–Ibarra railroad above Alto Tambo in a north-east direction, he found another pair of *V. masteri* in a mixed-species flock (c.00°55'N, 78°29'W; c.800 m).

Between 12 January and 2 March 2006, OJ & PMV observed and tape-recorded *V. masteri* on almost all days of survey work in the Pachamama Valley (00°50'N,